APPENDIX B: REFERENCES FOR *TELECOM GLOSSARY 2000*

B.1 Source References for the Glossary

The terms and accompanying definitions contained in *Telecom Glossary 2000* are drawn from authoritative sources such as Federal Standard 1037C, *Glossary of Telecommunication Terms,* 1996; T1 Committee Standards and T1 Technical Subcommittee Standards and Reports; documents from the International Telecommunication Union; documents from the International Organization for Standardization, and documents from the American National Standards Institute, and numerous authoritative dictionaries and lexicons. Numerous U.S. Government publications (*e.g.,* the *Code of Federal Regulations, Title 47*) were also drawn upon for this and earlier versions of the standard.

The editors of this standard have rewritten many definitions as deemed necessary either to reflect technology advances or to make definitions, which were phrased in specialized terminology, more understandable to a broader audience.

In those cases where definitions were taken verbatim from copyrighted sources, the editors received *written* permission from the copyright holder to use the definition. The definitions from 47 CFR, from the *NTIA Manual*, from the *Radio Regulations,* and from other treaty documents were used verbatim.

Definitions with no source citation following them are either (a) from FED-STD-1037C, or (b) from a body of definitions proposed and reviewed by industry standards workers in the course of developing the draft *Telecom Glossary 2000*.

The full list of Normative References that is now part of the Foreword for *Telecom Glossary 2000* was called the *Legend* in earlier editions of the glossary. The complete list of Normative References is given below in this Appendix, in Tables B-1 through B-4.

Table B.1. Key to Literature Source Citations for *Telecom Glossary 2000* References

Citation	Meaning/Full Title

[ ] (no source citation)	These definitions are from two major sources:
	  (a) FED-STD-1037C 1996, *Glossary of Telecommunication Terms,* and
	  (b) a body of definitions proposed and reviewed by industry standards workers.

After...	Definitions with a source citation "[After...]" (as in "[After Weik '89]") are the responsibility of the Ad Hoc Group editing the glossary rather than the responsibility of the authors of the cited material.
2196	Definitions extracted verbatim from MIL-STD-2196 (SH), *Glossary, Fiber Optics* (Jan. 1989). The citation "[After 2196]" indicates editing of the source definition. All such editing is the responsibility of the editors of this T1 standard and not the cited document.
2382-35	Committee Draft 12/15/98 of ISO/IEC 2382-35 on networking.
2382-8	ISO/IEC 2382-8, *Information Technology - Vocabulary: Control, integrity, and security*, 1998.
ANSDIT	*American National Standard Dictionary for Information Technolog*y (ANSDIT), ANSI X3.197-1996, and the draft of the Millennial Edition of ANSDIT 2000.
Bahorsky	Bahorsky, R. (ed.) (1998), *Official Internet Dictionary*, Government Institutes. Used with written permission of the holder of the copyright.
CC	Common Criteria for Information Technology (IT), Security Evaluation, August 1999, CCIMB-909-031. (Inspiration from this source resulted in definitions that were rewritten to fit the *Telecom Glossary 200*0 format and purpose.)
CCITT/CCIR or ITU-T/ITU-R	Recommendations and other documents from the ITU-T and ITU-R, formerly the Consultative Committee for Telegraph and Telephone, and the Consultative Committee for Radio.
47CFR	Definitions extracted verbatim from the *Code of Federal Regulations, Sec. 47, Telecommunications* (rev. Oct. 1, 1987, Oct. 1988 & ff.).
47 CFR 36-A	Definitions extracted verbatim from the *Code of Federal Regulations, Ch. 1, Sec. 47, Part 36, Appendix-Glossary*, Oct. 1, 1999 edition.
FAA	Beaty, James S., *Glossary of Optical Communication Terms*, April 1991, DOT/FAA/CT-TN91-9, U.S. Department of Transportation, Federal Aviation Administration, Technical Center, Atlantic City

Citation	Meaning/Full Title
	International Airport, NJ.
FRMR	*Federal Information Resources Management Regulation 201-13-103.*
FCC	*FCC Glossary of Telecommunications Terms,* on the Web at http://www.fcc.gov/cib/handbook.html [accessed August 2000].
FED-STD-1045A	*Telecommunications: HF Radio Automatic Link Establishment* (1993).
FP	Definitions extracted from Federal Information Processing Standard Publication (FIPS PUB) 11-3, *American National Standard Dictionary for Information Systems*, which adopts ANSI X3N-1990 (with unchanged title), and which is superseded by ANS X3.172, 1996, *American National Standard Dictionary of Information Technology* (ANSDIT).
IEC	IEC (1999), *TC Newsletter*, No. 6, February. [IEC, 3 rue de Varembé, P.O. Box 131, 1211 Geneva 20, Switzerland.] (Modified by the Ad Hoc Group.)
IEEE-100-1992	*The New IEEE Standard Dictionary of Electrical and Electronics Terms* (1992), 5th Edition, IEEE, Inc., 345 East 47th Street, New York, NY 10017-2394.
INFOSEC-99 or NIS	*National Information Systems Security (INFOSEC) Gloss*ary, NSTISSI No. 4009, January 1999 (Revision 1).
ITU-T or ITU-R	Recommendations and other documents from the ITU-T or ITU-R, formerly the Consultative Committee for Telegraph and Telephone, and the Consultative Committee for Radio.
JP1 or JP 1-02	Telecommunications definitions extracted from Joint Chiefs of Staff Publication No. 1-02*, Department of Defense Dictionary of Military and Associated Terms* (1999), available on the Web at http://huachuca-dcd.army.mil/nsto/lexicon/lexicon.htm [Most recent access: Oct. 2, 2000.]
JSB	Beaty, James S., U.S. Department of Transportation, Federal Aviation Administration, William J. Hughes Technical Center, Atlantic City International Airport, NJ 08405. E-mail communication to the Ad Hoc Glossary Group.
Mattila	Mattila, S. (1998), *Secure Electronic Transaction Terms*, e-mail to the Ad Hoc Glossary Group. [Used with written permission of the holder of the copyright.]
MS	*Microsoft Press Computer Dictionary*, 3rd ed. 1997 [Redmond, WA: Microsoft Press. ISBN 1-57231-743-4, 704 pp.] [Substantially modified by the Ad Hoc Group.]
NECA/FCC-5	National Exchange Carrier Association, Inc., Tariff No. 5 filed with the FCC on March 9, 2000.

Citation	Meaning/Full Title
NTIA	Definitions extracted verbatim from the *NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management* .
NIS	The pre-1999 edition of INFOSEC-99. (See reference for INFOSEC-99 above.)
Pacific Newsbytes	*Pacific Newsbytes* Vol. 3, No. 10, Dec. 1998, & Vol. 4, No. 1, Jan. 1999.
RR	Definitions extracted verbatim from the *International Radio Regulations,* Malaga-Torremolinos (Oct. 1984, ref. 1985).
Silicon	Silicon Graphics (1998), *Film & Video Glossary*, 39 pp. [Inspiration from this glossary generated definitions that were significantly modified by the Ad Hoc Group to conform to the purpose of *Telecom Glossary 2000*.]
SMPTE	Society of Motion Picture and Television Engineers, a 60-page glossary, Proposed SMPTE Engineering Guideline, Annotated Glossary of Essential Terms for Electronic Production (1998). [Inspiration from this glossary generated definitions that were significantly modified by the Ad Hoc Group to suit the purposes of *Telecom Glossary 2000*.]
Sullivan	Sullivan, T.F.P. (ed.), *Official Telecommunications Dictionary* (1997), Government Institutes.
T1	Draft of *ANSI T1A1.5 Glossary,* Document #T1A1.5/94-137, July 29, 1994. S. Wolf (ed.). (For a complete bibliography of T1 Standards and Reports used in this glossary, see the ANSI T1 References List below.) NOTE: The T1-cited terms defined herein are as used in the standards developed by Committee T1. The same terms may be used in a different context with a different meaning.
After Weik '89	Use of this source citation acknowledges that the cited information is from *Communications Standard Dictionary,* 2nd ed., Dr. M. Weik, 1989 (Van Nostrand Reinhold Co., New York, NY), with the written permission of the holders of the copyright. These definitions are sometimes verbatim, but in most cases have been abbreviated or edited.
Weik	Weik, M. H., *Communications Standard Dictionary*, 1997, Chapman & Hall. Used with the written permission of the holder of the copyright.
X. …	Definitions cited "[X. ...]" or "[After X. ...]" were obtained from the X9 Accredited Standards Committee. The definitions have been rewritten for the broader audience. The X9 documents used in this glossary are listed below.

Note 1: Appreciation is proffered to the Telecommunications Industry Association for permission to include definitions from ANSI/EIA/TIA-440A, *Fiber Optics Terminology* (1988). These entries are not source-cited herein because of extensive editorial rewriting by the editors of this document in the interest of making the specialized terminology more understandable to a broad audience. Note 2: Appreciation is extended to working group T1A1.5 for providing their draft glossary of terms and definitions relating to video-quality degradation. Note 3: Appreciation is extended to working group T1X1 for providing their glossary of terms and definitions relating to synchronization and timing.

ANSI T1 References List

Table B-2. Numerical List of ANSI T1 Standards Cited in the Glossary

Standard No., Date	Title of the ANSI T1 Standard ("R" = reaffirmed)
T1A1.2-2000 – T1A1/2	*Proposed Definitions for Baseline Document,* T1A1.2/2000-002
T1.101-1999	*Synchronization Interface Standard*
T1.104-1991 (R1997)	*Exchange-Interexchange Carrier Interfaces—Individual Channel Signaling Protocols*
T1.105.03-1994	*Synchronous Optical Network (SONET)—Jitter at Network Interfaces*
T1.105.09-1996	*Synchronized Optical Network (SONET) Network Element Timing and Synchronization*
T1.110-1999	*Signalling System No. 7 (SS7)—General Information*
T1.118-1992 (R1997)	*Signalling System No. 7 (SS7)—Intermediate Signalling Network Identification (ISNI)*
T1.204-1992 (R1997)	*Operations, Administration, Maintenance, and Provisioning (OAM&P)—Lower-Layer Protocols for Interfaces between Operations Systems and Network Elements*
T1.206-1994	*Digital Exchanges and PBXs—Digital Circuit Loopback Test Line with NxDSO Capability*
T1.207-2000	*Operations, Administration, Maintenance, and Provisioning (OAM&P)—Terminating Test Line Access and Capabilities*
T1.209-1998	*Operations, Administration, Maintenance, and Provisioning (OAM&P)—Network Tones and Announcements*
T1.210-1989 and 1993 (R1999)	*Operations, Administration, Maintenance, and Provisioning (OAM&P)—Principles of Functions, Architectures, and Protocols for Interfaces between Operations Systems and Network Elements*
T1.213-1990	*Coded Identification of Equipment Entities of the North American*

Standard No., Date	Title of the ANSI T1 Standard ("R" = reaffirmed)
(R1996)	*Telecommunications System for Information Exchange*
T1.215-1990 and 1994	*Operations, Administration, Maintenance and Provisioning (OAM&P)—Fault Management Messages for Interfaces between Operations Systems and Network Elements*
T1.216-1990 and 1998	*Signalling System Number 7 (SS7)—Operations, Maintenance and Administration Part (OAM&P)*
T1.217-1991 (R1998)	*Integrated Services Digital Network (ISDN) Management—Primary Rate Physical Layer*
T1.218-1991 (R1999)	*Integrated Services Digital Network (ISDN) Management—Data-Link and Network Layers*
T1.222-1991 (replaced by T1.251-1996)	*Identification of Exchange Carrier Company Names and Codes for the North American Telecommunications System*
T1.223.1991 (R1997)	*Information Interchange-Structure and Representation of Network Channel (NC) and Network Channel Interface (NCI) Codes for the North American Telecommunications System*
T1.224-1992 (withdrawn)	*Operations, Administration, Maintenance, and Provisioning (OAM&P)—Protocols for Interfaces between Operations Systems in Different Jurisdictions*
T1.226-1992	*Operations, Administration, Maintenance and Provisioning (OAM&P)—Management of Functions for Signalling System No. 7 (SS7) Network Interconnections*
T1.230-1994 (R1999)	*Telecommunications Credit Card and Billed Number Screening Validation Message Component*
T1.231-1997	*Digital Hierarchy—Layer 1 In-Service Digital Transmission Performance Monitoring*
T1.232-1996	*Operations, Administration, Maintenance, and Provisioning (OAM&P)—G Interface Specification for Use with the Telecommunications Management Network (TMN)*
T1.233-1993 (R1999)	*Operations, Administration, Maintenance, and Provisioning (OAM&P)—Security Framework for Telecommunications Management Network (TMN) Interfaces*
T1.234-1993	*Signalling System Number 7 (SS7)—MTP Levels 2 and 3 Compatibility Testing*
T1.235-1993	*Signalling System Number 7 (SS7)—SCCP Class 0 Compatibility Testing*
T1.236-1993	*Signalling System Number 7 (SS7)—ISDN User Part Compatibility Testing*
T1.238-1994 and 1997	*Information Interchange—Structure for the Identification of Telecommunications Facilities for the North American Telecommunications System*

Standard No., Date	Title of the ANSI T1 Standard ("R" = reaffirmed)
T1.243-1995 (R1999)	*Operations, Administration, Maintenance, and Provisioning (OAM&P)—Baseline Security Requirements for the Telecommunications Management Network*
T1.244-1995	*Operations, Administration, Maintenance, and Provisioning (OAM&P)—Interface Standards for Personal Communications Services*
T1.245-1997	*Directory Service for Telecommunications Management Network (TMN) and Synchronous Optical Network (SONET)*
T1.246-1998 and 1999	*Operations, Administration, Maintenance and Provisioning (OAM&P)—Information Model and Services for Interfaces between Operations Systems Across Jurisdictional Boundaries to Support Configuration Management Customer Account Record Exchange (CARE)*
T1.250-1996	*Operations, Administration, Maintenance, and Provisioning (OAM&P)—Extension to Generic Network Information Model for Interfaces Between Operations Systems and Network Elements to Support Configuration Management-Analog and Narrowband ISDN Customer Service Provisioning*
T1.251-1996	*Identification of Telecommunications Service Provider Codes for the North American Telecommunications System*
T1.253-1999	*Information Interchange—Code Description and Codes for the Identification of Location Entities for the North American Telecommunications System*
T1.255-1997	*In-Service, Non-Intrusive Measurement Device (INMD)— Methodology for Applying INMD Measurements to Customer Opinion Models*
T1.256-1999	*Operations, Administration, Maintenance, and Provisioning (OAM&P)—Model for Interface Across Jurisdictional Boundaries to Support Electronic Access Service Ordering: Inquiry Function*
T1.263-1998	*Operations, Administration, Maintenance, and Provisioning (OAM&P)—Model for Interfaces Across Jurisdictional Boundaries to Support Service-Level Connection Management*
T1.266-2000	*Information Interchange—Structure for the Identification of Telecommunications Circuits for the North American Telecommunications System*
T1.305-1990 (withdrawn)	*Digital Processing of Program Audio Signals-Algorithm for 15-kHz Audio at 384 kbit/s using 14/11 Bit Coding*
T1.308-1996	*Central Office Equipment—Electrostatic Discharge Immunity Requirements*
T1.309-1990 (withdrawn)	*Digital Circuit Multiplication Equipment (DCME)—Interface Functional and Performance Specification*

Standard No., Date	Title of the ANSI T1 Standard ("R" = reaffirmed)
T1.310-1991 (withdrawn)	*Digital Processing of Voice-Band Signals—Algorithms for 5-, 4-, 3-, and 2-bit/Sample Embedded Adaptive Differential Pulse Code Modulation (ADPCM)*
T1.312-1991 (R1997)	*Voice Packetization—Packetized Voice Protocol*
T1.313-1997	*Electrical Protection for Telecommunications Central Offices and Similar Type Facilities*
T1.316-1997	*Electrical Protection of Telecommunications Outside Plant*
T1.317-1993 (R1999)	*Uniform Language for Accessing Power Plants—Human-Machine Language*
T1.318-1994, 2000	*Electrical Protection Applied to Telecommunications Network Plant at Entrances to Customer Structures or Buildings*
T1.320-1994	*Above-Baseline Electrical Protection for Designated Telecommunications Central Offices and Similar-Type Facilities against High-Altitude Electromagnetic Pulse (HEMP)*
T1.321-1995	*Electrical Protection for Network Operator-Type Equipment Positions*
T1.328-1995	*Protection of Telecommunications Links from Physical Stress and Radiation Effects and Associated Requirements for DC Power Systems (A Baseline Standard)*
T1.329-1995	*Network Equipment—Earthquake Resistance*
T1.330-1997	*Valve-Regulated Lead-Acid Batteries Used in the Telecommunications Environment*
T1.401.03-1998	*Network-to-Customer Installation Interfaces—Analog Voicegrade Switched Access Lines with Calling Number Delivery, Calling Name Delivery or Visual Message-Waiting Indicator Features*
T1.407-1997	*Network to Customer Installation Interfaces—Analog Voicegrade Special Access Lines Using Customer-Installation-Provided Loop-Start Supervision*
T1.408-1990 (replaced by T1.403.01-1999)	*Integrated Services Digital Network (ISDN) Primary Rate—Customer Installation Metallic Interfaces Layer 1 Specification*
T1.409-1996	*Network to Customer Installation Interfaces—Analog Voicegrade Special Access Lines Using E&M Signaling*
T1.414-1998	*Network to Customer Interfaces—Enhanced 911 Analog Voicegrade PSAP Access Using Loop Reverse-Battery Signaling*
T1.503-1996	*Network Performance Parameters for Dedicated Digital Services— Definitions and Measurements*
T1.507-1996	*Network Performance Parameters for Circuit-Switched Digital Services—Definitions and Measurements*

Standard No., Date	Title of the ANSI T1 Standard ("R" = reaffirmed)
T1.508-1998	*Loss Plan for Evolving Digital Networks*
T1.509-1995 (R1999)	*Packetized Circuit Multiplication Equipment—Interface Specification*
T1.514-1995	*Network Performance Parameters and Objectives for Dedicated Digital Services—SONET Bit Rates*
T1.601-1988 (R1999)	*Integrated Services Digital Network (ISDN)—Basic Access Interface for Use on Metallic Loops for Application on the Network Side of the NT (Layer 1 Specification)*
T1.615-1992 (R1999)	*Digital Subscriber Signalling System No. 1 (DSS1)—Layer 3 Overview*
T1.620-1991 (R1997)	*Integrated Services Digital Network (ISDN)—Circuit-Mode Bearer Service Category Description*
T1.625-1993 (R1999)	*Integrated Services Digital Network (ISDN)—Calling Line Identification Presentation and Restriction Supplementary Services*
T1.627-1993 (R1999)	*Broadband ISDN—ATM Layer Functionality and Specification*
T1.628-1993	*Routing, Bridging, and Transfer of Emergency Service Calls (RBTESC)*
T1.629-1999	*Broadband ISDN---ATM Adaptation Layer 3/4 Common Part— Functions and Specification*
T1.630-1999	*Broadband ISDN—ATM Adaptation Layer for Constant Bit Rate Services Functionality and Specification*
T1.640-1996	*Broadband ISDN Network Node Interfaces and Inter-Network Interfaces—Rates and Formats Specifications*
T1.646-1995 (supercedes T1.624-1993)	*Broadband ISDN—Physical Layer Specification for User-Network Interfaces Including DS1/ATM*
T1.647-1995	*Integrated Services Digital Network (ISDN)—Conference Calling Supplementary Service*
T1.649-1995	*B-ISDN Cell Relay Service Description*
T1.653-1996	*Integrated Services Digital Network (ISDN)—Call Park Supplementary Service*
T1.661-1997	*Signalling System Number 7 (SS7)—Release to Pivot (RTP)*
T1.667-1999	*Intelligent Network*
T1.701-1994 (R1999)	*Universal Personal Telecommunication (UPT)—Service Description (Service Set One)*
T1.702-1995	*Personal Communications Terminology*
T1.707-1998	*Requirements for a User Identity Module (UIM) for Personal Communications Services (PCS)*
T1.708-1998	*PCS 1900 Service Provider Number Portability*
T1.711-1999	*Number Portability for PCS 1900 Short Message Service and Other*

Standard No., Date	Title of the ANSI T1 Standard ("R" = reaffirmed)
	Services
T1.800.01-1995	*Visual Telephone Systems and Terminal Equipment Using Digital Channels up to 1920 kbit/s*
T1.800.06-1995	*Multipoint Control Units for Audiovisual Systems Using Digital Channels up to 1920 kbit/s*
T1.800.08-1995	*Multimedia Communications and Performance*
T1.801.02-1996	*Digital Transport of Video Teleconferencing/Video Telephony Signals— Performance Terms, Definitions, and Examples*
T1.801.04-1997	*Multimedia Communications Delay, Synchronization, and Frame Rate*
T1.X1	Definitions provided by T1X1 from their experts on synchronization and timing.

Table B-3. Committee T1 Technical Reports Cited in the Glossary.

T1 Report No. –Date	T1 Report Title
T1-Rpt 11-1991	*A Technical Report on Switched Exchange-Access Network Traffic Availability Performance*
T1-Rpt 16-1992	*A Technical Report on DS3 Transport for Contribution Application of System M-NTSC Television Signals Analog Interface and Performance Objectives*
T1-Rpt 17-1993	*A Technical Report on the Effects of SONET on Payload Output Jitter*
T1-Rpt 19-1993	*A Technical Report on Wireless Personal Communications: Transmission Performance Guidelines for Speech and Voiceband Data*
T1-Rpt 22-1993	*A Technical Report on Privacy and Authentication Objectives for Wireless Access to Personal Communications*
T1-Rpt 24-1993	*A Technical Report on Network Survivability Performance*
T1-Rpt 25-1993	*A Technical Report on Test Patterns for DS1 Circuits*
T1-Rpt 28-1994	*A Technical Report on High-Bit-Rate Digital Subscriber Lines (HDSL)*
T1-Rpt 30-1994	*A Technical Report on UPT Numbering and Addressing in World Zone 1*
T1-Rpt 31-1994	*A Technical Report on Delay and Echo Performance Guidelines for SONET Self-Healing Rings During Diversity Routing*
T1-Rpt 34-1994	*A Technical Report on Network Capabilities, Architectures, and Interfaces for Personal Communications*

T1 Report No. –Date	T1 Report Title
T1-Rpt 37-1994	*A Technical Report on Line Break Detection (LBD)*
T1-Rpt 38-1994	*A Technical Report on Analysis of FCC-Reportable Service Outage Data*
T1-Rpt 39-1995	*A Technical Report on Termination Devices for Digital Data at 64 kbit/s and Subrates*
T1-Rpt 41-1995	*A Technical Report on UPT Routing for the Networks Served by the North American Numbering Plan*
T1-Rpt 44-1995	A Technical Report on Security Management *Guidelines to Support PCS*
T1-Rpt 46-1996	*A Technical Report on Transmission Performance Standards Issues Regarding the Introduction of ATM Technology into Networks Supporting Voiceband Services*

Table B-4. Other References Cited in the Glossary

X9 References

  X9.5 –   Financial Institution Numbering System, 1994
  X9.8 –   Personal Identification Number (PIN) Management and Security, 1995
  X9.9 –   Financial Institution Message Authentication, 1994
  X9.15 – Specifications for Financial Message Exchange Between Card Acceptor and
              Acquirer, 1996
  X9.17 – Financial Institution Key Management, 1995
  X9.19 – Financial Institution Retail Message Authentication, 1996
  X9.23 – Encryption of Wholesale Financial Messages
  X9.24 – Financial Services Retail Key Management
  X9.26 – Financial Institution Sign-On Authentication for Wholesale Financial Services
  X9.30-1 and 30-2 – Public Key Cryptography Using Irreversible Algorithms, 1997
  X9.31 –   Digital Signatures Using Reversible Public Key Cryptography for the Financial
              Services Industry, 1998
  X9.49 – Secure Remote Access to Financial Services for the Financial Industry, 1998
  X9.52 – Triple Data Encryption Algorithm Modes of Operation, 1998
  X9.57 – Public Key Cryptography for the Financial Services Industry, Certificate
              Management, 1997

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  http://home.netscape.com/newsref/std/cookie_spec.html
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        [accessed October 27, 2000]